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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
William F. Strutz, Thomas R. Berger, and Scott W. Anderson

Serial No.: unk

Filed: herewith

For: Methods Of Operating A Food Waste Disposer Having a Variable Speed Motor (as amended herein)

Group Art Unit: unk

Examiner: unk

Atty. Dkt. No.: EISE:096—2/LWT

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Please consider the enclosed preliminary amendment. As the fees for the enclosed claims have been addressed in the transmittal that accompanied the filing of this divisional application, it is believed that no further fees are necessary for this Office to consider this preliminary amendment. However, should any additional fees be due, this Office is authorized to deduct such fees from Deposit Account No. 01-2508/EISE:096--2/LWT.

Reconsideration of the application is respectfully requested.

AMENDMENTS

IN THE SPECIFICATION:

• **Please change the title of the specification to:** -- Methods Of Operating A Food Waste Disposer Having a Variable Speed Motor --

• **Please amend specification paragraph starting at page 2, line 5, as follows:**

-- This application is a divisional application of Application No. 09/777,129, filed February 5, 2001, to which priority is claimed pursuant to 35 U.S.C. § 120. Application 09/777,129 in turn claims the benefit of U.S. Provisional Application No. 60/253,481 filed on November 28, 2000[,]. Both of these prior applications [which is] are incorporated by reference in [its] their entirety and priority is claimed to each. This application is related to Application Serial No. [_____] 09/777,126 entitled "Switched Reluctance Machine and Food Waste Disposer Employing Switched Reluctance Machine" by Strutz, filed concurrently herewith, the disclosure of which is incorporated herein by reference in its entirety. --

• **Please amend specification paragraph starting at page 11, line 28, as follows:**

-- The lower lug support plate 124 may be formed from a flat strip or sheet of metal that is stamped into shape. Like the upper rotating plate 122, the lower lug support plate 124 may also be formed by powdered metal methods, by injection molding methods such as insert plastic injection molding or metal injection molding, or by casting methods such as die-casting or investment casting. The lower lug support plate 124 preferably may have a thickness ranging

from about 0.090 inch to about 0.190 inch [think] thick. In a preferred embodiment, the lower lug support plate 124 is composed of stainless steel and has a thickness of about 0.125 inch thick. If stamping methods are used, the shredder lugs 142 and tumbling spikes 144 may be formed by folding portions of the stamped metal upward. In this way, the shredder lugs 142 and tumbling spikes 144 are an integral part of the lower lug support plate 124. After forming the shredder lugs 142 and the tumbling spikes 144, the lug support plate 124 is preferably heat treated by methods known by those skilled in the art. Other types of suitable fixed lug designs are disclosed in Patent Application Serial No. 09/524,853 (filed 3/14/00), entitled "Grinding Mechanism For A Food Waste Disposer And Method Of Making The Grinding Mechanism," by Scott W. Anderson, et al., which is owned by the assignee of the present application and incorporated herein by reference in it entirety. –

• Please amend specification paragraph starting at page 13, line 6, as follows:

-- The upper end bell 164 is used to separate the central grinding section 104 and the variable speed motor section 106. The variable speed motor section 106 is housed inside a housing 174 and a lower end frame 176. The housing 174 may be formed from sheet metal and the lower end frame 176 may be formed from stamped metal. The housing 174 and lower end frame 176 are attached to the upper end bell 164 by screws or bolts 178. –

• Please amend specification paragraph starting at page 13, line 11, as follows:

-- It has been found, through the present invention, that many of the problems of the prior art may be overcome by using a variable speed motor. One suitable variable speed motor is a switched reluctance machine that may be obtained from Emerson Appliance Motors in St. Louis.

An example of a switched reluctance machine and a suitable control for a switched reluctance machine is further described in U.S. Patent Nos. 6,014,003 and 6,051,942, which are owned by the assignee of the present invention and incorporated herein by reference in their entirety. Another suitable type of switched reluctance machine is disclosed in Application Serial No. [_____] 09/777,126 entitled "Switched Reluctance Machine and Food Waste Disposer Employing Switched Reluctance Machine" by Strutz, filed concurrently herewith and owned by the assignee of the present invention, the disclosure of which is incorporated herein by reference in its entirety. The present invention may also include other motors that are modified for variable speed by adding a controller. Such motors may include universal motors, permanent magnet motors or induction motors.--

AMENDMENTS (cont.)

IN THE CLAIMS:

- **Please cancel claims 1-41.**

- **Please add the following new claims:**

42. (new) A method for operating a food waste disposer to process food waste, the food waste disposer having a motor for imparting movement to a rotatable shaft which is coupled to a grinding mechanism, the method comprising sequentially

rotating the grinding mechanism at a first rotational speed for a first period of time; and

rotating the grinding mechanism at a second rotational speed for a second period of time.

43. (new) The method of claim 42, wherein the motor is a switched reluctance motor.

44. (new) The method of claim 42, wherein the motor is a variable speed motor.

45. (new) The method of claim 42, wherein the second rotational speed is less than the first rotational speed.

46. (new) The method of claim 45, wherein the first rotational speed is between 2500 and 4000 rotations per minute.

47. (new) The method of claim 45, wherein the second rotational speed is less than 2500 rotations per minute.

48. (new) The method of claim 42, wherein the second rotational speed is greater than the first rotational speed.

49. (new) The method of claim 42, further comprising rotating the grinding mechanism at a third rotational speed for a third period of time.

50. (new) The method of claim 49, wherein the first rotational speed is greater than the second rotational speed, and the second rotating speed is greater than the third rotational speed.

51. (new) The method of claim 50, wherein the third rotational speed is between 100 and 1500 rotations per minute.

52. (new) The method of claim 49, wherein the first rotational speed is less than the second rotational speed, and the second rotational speed is greater than the third rotational speed.

53. (new) The method of claim 52, wherein the first and third rotational speeds are equal.

54. (new) The method of claim 42, wherein the grinding mechanism comprises a shredder plate.

55. (new) The method of claim 54, wherein the shredder plate includes grinding lugs.

56. (new) The method of claim 42, wherein the motor is positioned in a motor housing section and wherein the grinding mechanism is positioned in a grinding section, and wherein the motor housing section and the grinding section are adjacent.

57. (new) The method of claim 56, wherein the grinding section further comprises a stationary shedder ring.

58. (new) The method of claim 56, further comprising a food conveying section adjacent to the grinding section for receiving food waste.

59. (new) The method of claim 42, wherein the first and second rotational speed are controlled by a motor controller.

60. (new) The method of claim 59, wherein the motor includes a stator, and wherein the motor controller is in electrical communication with the stator.

61. (new) A method for operating a food waste disposer to process food waste, the food waste disposer having a motor for imparting movement to a rotatable shaft which is coupled to a grinding mechanism, the method comprising:

automatically determining the presence of food waste in the food waste disposer; and

controllably changing the rotational speed of the grinding mechanism depending on the presence of food waste in the food waste disposer.

62. (new) The method of claim 61, wherein the rotational speed of the grinding mechanism is increased if food waste is present in the food waste disposer.

63. (new) The method of claim 62, wherein the rotational speed of the grinding mechanism is increased from a first rotational speed to a second rotational speed.

64. (new) The method of claim 63, wherein the first rotational speed is between 400 and 800 rotations per minute.

65. (new) The method of claim 63, wherein the rotational speed of the grinding mechanism is subsequently decreased from the second rotational speed to the first rotational speed if food waste exists the food waste disposer.

66. (new) The method of claim 61, wherein the rotational speed of the grinding mechanism is decreased if food waste is not present in the food waste disposer.

67. (new) The method of claim 66, wherein the rotational speed of the grinding mechanism is decreased from a first rotational speed to a second rotational speed.

68. (new) The method of claim 67, wherein the rotational speed of the grinding mechanism is subsequently increased from the second rotational speed to the first rotational speed if food waste enters the food waste disposer.

69. (new) The method of claim 61, wherein the presence of food waste in the food waste disposer is determined by a motor controller.

70. (new) The method of claim 69, wherein the motor further comprises a stator, and wherein the controller is in electrical communication with the stator.

71. (new) The method of claim 70, wherein determining the presence of food waste in the food waste disposer comprises using the controller to monitor a current in the stator.

72. (new) The method of claim 71, wherein an increase in current indicates the addition of food waste to the food waste disposer.

73. (new) The method of claim 72, wherein the rotational speed of the grinding mechanism is increased in response to the increase in current.

74. (new) The method of claim 73, wherein the rotational speed of the grinding mechanism is increased from a first rotational speed to a second rotational speed.

75. (new) The method of claim 74, wherein the first rotational speed is between 400 and 800 rotations per minute.

76. (new) The method of claim 71, wherein a decrease in current indicates the exiting of food waste from the food waste disposer.

77. (new) The method of claim 76, wherein the rotational speed of the grinding mechanism is decreased in response to the decrease in current.

78. (new) The method of claim 61, wherein the grinding mechanism comprises a shredder plate.

79. (new) The method of claim 78, wherein the shredder plate includes grinding lugs.

80. (new) The method of claim 61, wherein the motor is positioned in a motor housing section and wherein the grinding mechanism is positioned in a grinding section, and wherein the motor housing section and the grinding section are adjacent.

81. (new) The method of claim 80, wherein the grinding section further comprises a stationary shedder ring.

82. (new) The method of claim 80, further comprising a food conveying section adjacent to the grinding section for receiving food waste.

83. (new) The method of claim 61, wherein the motor is a switched reluctance motor.

84. (new) The method of claim 61, wherein the motor is a variable speed motor.

85. (new) A method for operating a food waste disposer to process food waste, the food waste disposer having a food conveying section and a motor for imparting movement to a rotatable shaft which is coupled to a grinding mechanism, the method comprising sequentially

removing processed food waste from the food waste disposer; and

providing water to the grinding mechanism while controllably changing a rotational speed of the grinding mechanism.

86. (new) The method of claim 85, wherein the method is performed after the food waste disposer performs an idle mode.

87. (new) The method of claim 86, wherein the food waste disposer is in an idle mode for a certain period of time before performing the method.

88. (new) The method of claim 85, wherein the rotational speed of the grinding mechanism is controllably increased when water is provided to the grinding mechanism.

89. (new) The method of claim 88, wherein the rotational speed of the grinding mechanism is increased from a first rotational speed to a second rotational speed.

90. (new) The method of claim 89, wherein the first rotational speed is between 400 and 800 rotations per minute.

91. (new) The method of claim 89, wherein the second rotational speed is greater than 1500 rotations per minute.

92. (new) The method of claim 85, wherein the motor is a switched reluctance motor.

93. (new) The method of claim 85, wherein the motor is a variable speed motor.

94. (new) The method of claim 85, wherein the food waste disposer further comprises a water inlet separate from the food conveying section, and wherein water is provided to the grinding mechanism through the water inlet.

95. (new) The method of claim 94, wherein the rotational speed of the grinding mechanism is controllably changed by a motor controller.

96. (new) The method of claim 95, wherein the motor comprises a stator, and wherein the motor controller is in electrical communication with the stator.

97. (new) The method of claim 95, wherein the motor controller is in electrical communication with a valve, and wherein the controller provides water to the grinding mechanism through the water inlet by opening the valve.

98. (new) The method of claim 88, wherein the method is performed prior to turning off the food waste disposer.

99. (new) The method of claim 88, wherein the rotational speed of the grinding mechanism is increased for a predetermined period of time.

100. (new) The method of claim 85, wherein the grinding mechanism comprises a shredder plate.

101. (new) The method of claim 100, wherein the shredder plate includes grinding lugs.

102. (new) The method of claim 85, wherein the grinding mechanism is positioned in a grinding section, and wherein providing water to the grinding mechanism while controllably changing a rotational speed of the grinding mechanism causes water to rinse the grinding section.

103. (new) The method of claim 102, wherein controllably changing a rotational speed of the grinding mechanism comprises increasing a rotational speed of the grinding mechanism.

104. (new) The method of claim 102, wherein the grinding section further comprises a stationary shedder ring.

105. (new) A method for operating a food waste disposer to process food waste, the food waste disposer having a motor for imparting movement to a rotatable shaft which is coupled to a grinding mechanism, the method comprising:

determining whether food waste is jammed in the grinding mechanism by monitoring a current provided to the motor; and

attempting to dislodge the jammed waste from the grinding mechanism by adjusting the torque of the rotatable shaft.

106. (new) The method of claim 105, wherein the motor is a switched reluctance motor.

107. (new) The method of claim 105, wherein the motor is a variable speed motor.

108. (new) The method of claim 105, wherein the current is provided to a stator of the motor.

109. (new) The method of claim 108, wherein it is determined that food waste is jammed in the grinding mechanism by monitoring an increase in the current.

110. (new) The method of claim 105, wherein the torque of the rotatable shaft is increased.

111. (new) The method of claim 110, wherein the torque of the rotatable shaft is increased from a first torque to a second torque.

112. (new) The method of claim 105, wherein adjusting the torque of the rotatable shaft comprises reversing the rotational movement of the rotatable shaft.

113. (new) The method of claim 105, wherein adjusting the torque of the rotatable shaft comprises sequentially adjusting the rotational movement of the rotatable shaft between a reverse rotational direction and a forward rotational direction.

114. (new) The method of claim 105, wherein the grinding mechanism comprises a shredder plate.

115. (new) The method of claim 114, wherein the shredder plate includes grinding lugs.

116. (new) The method of claim 105, wherein the motor is positioned in a motor housing section and wherein the grinding mechanism is positioned in a grinding section, and wherein the motor housing section and the grinding section are adjacent.

117. (new) The method of claim 116, wherein the grinding section further comprises a stationary shedder ring.

118. (new) The method of claim 116, further comprising a food conveying section adjacent to the grinding section for receiving food waste.

119. (new) A method for operating a food waste disposer to process food waste, the food waste disposer having a motor for imparting movement to a rotatable shaft which is coupled to a grinding mechanism, the method comprising controllably increasing the rotational speed of the grinding mechanism to a predetermined rotational rate over a predetermined period of time.

120. (new) The method of claim 119, wherein the motor is a switched reluctance motor.

121. (new) The method of claim 119, wherein the motor is a variable speed motor.

122. (new) The method of claim 119, wherein the grinding mechanism comprises a shredder plate.

123. (new) The method of claim 122, wherein the shredder plate includes grinding lugs.

124. (new) The method of claim 119, wherein the predetermined rotational rate is greater than 1500 rotations per minute.

125. (new) The method of claim 119, wherein the predetermined period of time is greater than three seconds.

126. (new) The method of claim 119, wherein the rotational speed of the grinding mechanism is controllably increased from a stationary position.

127. (new) The method of claim 119, wherein the motor is positioned in a motor housing section and wherein the grinding mechanism is positioned in a grinding section, and wherein the motor housing section and the grinding section are adjacent.

128. (new) The method of claim 127, wherein the grinding section further comprises a stationary shedder ring.

129. (new) The method of claim 127, further comprising a food conveying section adjacent to the grinding section for receiving food waste.

130. (new) A method for operating a food waste disposer to process food waste, the food waste disposer having a variable speed motor for imparting movement in a first direction to a rotatable shaft which is coupled to a grinding mechanism, the method comprising controllably varying the rotational speed of the grinding mechanism in the first direction during the operation of the food waste disposer.

131. (new) The method of claim 130, wherein the motor is a switched reluctance motor.

132. (new) The method of claim 130, wherein the food waste disposer further comprises a motor controller, and wherein the motor controller controllably varies the rotational speed of the grinding mechanism during the operation of the food waste disposer.

133. (new) The method of claim 132, wherein the motor further comprises a stator, and wherein the motor controller sends a current to the stator to controllably vary the rotational speed of the grinding mechanism during the operation of the food waste disposer.

134. (new) The method of claim 130, wherein controllably varying the rotational speed of the grinding mechanism during the operation of the food waste disposer comprises increasing the rotational speed from a first rotational speed to a second rotational speed.

135. (new) The method of claim 130, wherein controllably varying the rotational speed of the grinding mechanism during the operation of the food waste disposer comprises decreasing the rotational speed from a first rotational speed to a second rotational speed.

136. (new) The method of claim 130, wherein controllably varying the rotational speed of the grinding mechanism during the operation of the food waste disposer comprises controllably increasing the rotational speed over a predetermined period of time.

137. (new) The method of claim 136, wherein the rotational speed is increased from a first rotational speed to a second rotational speed.

138. (new) The method of claim 136, wherein the rotation speed is increased from a stationary position to a first rotational speed.

139. (new) The method of claim 130, wherein controllably varying the rotational speed of the grinding mechanism during the operation of the food waste disposer comprises varying the rotational speed in accordance with the presence of food waste in the food waste disposer.

140. (new) The method of claim 139, wherein the rotational speed is increased when food is present in the food waste disposer.

141. (new) The method of claim 130, wherein controllably varying the rotational speed of the grinding mechanism during the operation of the food waste disposer comprises varying the rotational speed when water is introduced onto the grinding mechanism to rinse the grinding mechanism.

142. (new) The method of claim 141, wherein the rotational speed is increased when water is introduced onto the grinding mechanism.

143. (new) The method of claim 142, wherein the method is performed prior to shutting off the food waste disposer.

144. (new) The method of claim 130, wherein the controllably varying the rotational speed of the grinding mechanism during the operation of the food waste disposer occurs when food waste is jammed in the grinding mechanism.

REMARKS

Claims 42-144 are pending. The title of the Application had been amended. Furthermore, paragraphs in the specification have been amended to reflect the issuance of a serial number in Applicant's copending application, to claim priority to earlier applications, and to fix certain typographical errors.

This divisional application pursues Group III claims 15-41 which were not elected for prosecution in this application's parent case, serial number 09/777,129. Applicant submits that new claims 42-144 are directed to the same basic subject matter as claims 15-41, and hence are consistent with the restriction requirement issued in the '129 application, and are not subject to further restriction from this application.

A clean copy of the claims as amended by this response is attached for the Examiner's convenience, as is a clean copy of the amended specification paragraphs.

Respectfully submitted,

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Date: 1-11-2001

Amended Title

Methods Of Operating A Food Waste Disposer Having a Variable Speed Motor

Clean Copy of Amended Specification Paragraphs

* Starting at pg. 2, l. 5:

This application is a divisional application of Application No. 09/777,129, filed February 5, 2001, to which priority is claimed pursuant to 35 U.S.C. § 120. Application 09/777,129 in turn claims the benefit of U.S. Provisional Application No. 60/253,481 filed on November 28, 2000. Both of these prior applications are incorporated by reference in their entirety and priority is claimed to each. This application is related to Application Serial No. 09/777,126 entitled "Switched Reluctance Machine and Food Waste Disposer Employing Switched Reluctance Machine" by Strutz, filed concurrently herewith, the disclosure of which is incorporated herein by reference in its entirety.

* Starting at pg. 11, l. 28:

The lower lug support plate 124 may be formed from a flat strip or sheet of metal that is stamped into shape. Like the upper rotating plate 122, the lower lug support plate 124 may also be formed by powdered metal methods, by injection molding methods such as insert plastic injection molding or metal injection molding, or by casting methods such as die-casting or investment casting. The lower lug support plate 124 preferably may have a thickness ranging from about 0.090 inch to about 0.190 inch thick. In a preferred embodiment, the lower lug support plate 124 is composed of stainless steel and has a thickness of about 0.125 inch thick. If

stamping methods are used, the shredder lugs 142 and tumbling spikes 144 may be formed by folding portions of the stamped metal upward. In this way, the shredder lugs 142 and tumbling spikes 144 are an integral part of the lower lug support plate 124. After forming the shredder lugs 142 and the tumbling spikes 144, the lug support plate 124 is preferably heat treated by methods known by those skilled in the art. Other types of suitable fixed lug designs are disclosed in Patent Application Serial No. 09/524,853 (filed 3/14/00), entitled "Grinding Mechanism For A Food Waste Disposer And Method Of Making The Grinding Mechanism," by Scott W. Anderson, et al., which is owned by the assignee of the present application and incorporated herein by reference in it entirety.

* Starting at pg. 13, l. 6:

The upper end bell 164 is used to separate the central grinding section 104 and the variable speed motor section 106. The variable speed motor section 106 is housed inside a housing 174 and a lower end frame 176. The housing 174 may be formed from sheet metal and the lower end frame 176 may be formed from stamped metal. The housing 174 and lower end frame 176 are attached to the upper end bell 164 by screws or bolts 178.

* Starting at pg. 13, l. 11:

It has been found, through the present invention, that many of the problems of the prior art may be overcome by using a variable speed motor. One suitable variable speed motor is a switched reluctance machine that may be obtained from Emerson Appliance Motors in St. Louis. An example of a switched reluctance machine and a suitable control for a switched reluctance machine is further described in U.S. Patent Nos. 6,014,003 and 6,051,942, which are owned by

the assignee of the present invention and incorporated herein by reference in their entirety. Another suitable type of switched reluctance machine is disclosed in Application Serial No. 09/777,126 entitled "Switched Reluctance Machine and Food Waste Disposer Employing Switched Reluctance Machine" by Strutz, filed concurrently herewith and owned by the assignee of the present invention, the disclosure of which is incorporated herein by reference in its entirety. The present invention may also include other motors that are modified for variable speed by adding a controller. Such motors may include universal motors, permanent magnet motors or induction motors.

Clean copy of all pending claims

42. (new) A method for operating a food waste disposer to process food waste, the food waste disposer having a motor for imparting movement to a rotatable shaft which is coupled to a grinding mechanism, the method comprising sequentially

rotating the grinding mechanism at a first rotational speed for a first period of time; and

rotating the grinding mechanism at a second rotational speed for a second period of time.

43. (new) The method of claim 42, wherein the motor is a switched reluctance motor.

44. (new) The method of claim 42, wherein the motor is a variable speed motor.

45. (new) The method of claim 42, wherein the second rotational speed is less than the first rotational speed.

46. (new) The method of claim 45, wherein the first rotational speed is between 2500 and 4000 rotations per minute.

47. (new) The method of claim 45, wherein the second rotational speed is less than 2500 rotations per minute.

48. (new) The method of claim 42, wherein the second rotational speed is greater than the first rotational speed.

49. (new) The method of claim 42, further comprising rotating the grinding mechanism at a third rotational speed for a third period of time.

50. (new) The method of claim 49, wherein the first rotational speed is greater than the second rotational speed, and the second rotating speed is greater than the third rotational speed.

51. (new) The method of claim 50, wherein the third rotational speed is between 100 and 1500 rotations per minute.

52. (new) The method of claim 49, wherein the first rotational speed is less than the second rotational speed, and the second rotational speed is greater than the third rotational speed.

53. (new) The method of claim 52, wherein the first and third rotational speeds are equal.

54. (new) The method of claim 42, wherein the grinding mechanism comprises a shredder plate.

55. (new) The method of claim 54, wherein the shredder plate includes grinding lugs.

56. (new) The method of claim 42, wherein the motor is positioned in a motor housing section and wherein the grinding mechanism is positioned in a grinding section, and wherein the motor housing section and the grinding section are adjacent.

57. (new) The method of claim 56, wherein the grinding section further comprises a stationary shedder ring.

58. (new) The method of claim 56, further comprising a food conveying section adjacent to the grinding section for receiving food waste.

59. (new) The method of claim 42, wherein the first and second rotational speed are controlled by a motor controller.

60. (new) The method of claim 59, wherein the motor includes a stator, and wherein the motor controller is in electrical communication with the stator.

61. (new) A method for operating a food waste disposer to process food waste, the food waste disposer having a motor for imparting movement to a rotatable shaft which is coupled to a grinding mechanism, the method comprising:

automatically determining the presence of food waste in the food waste disposer; and

controllably changing the rotational speed of the grinding mechanism depending on the presence of food waste in the food waste disposer.

62. (new) The method of claim 61, wherein the rotational speed of the grinding mechanism is increased if food waste is present in the food waste disposer.

63. (new) The method of claim 62, wherein the rotational speed of the grinding mechanism is increased from a first rotational speed to a second rotational speed.

64. (new) The method of claim 63, wherein the first rotational speed is between 400 and 800 rotations per minute.

65. (new) The method of claim 63, wherein the rotational speed of the grinding mechanism is subsequently decreased from the second rotational speed to the first rotational speed if food waste exists the food waste disposer.

66. (new) The method of claim 61, wherein the rotational speed of the grinding mechanism is decreased if food waste is not present in the food waste disposer.

67. (new) The method of claim 66, wherein the rotational speed of the grinding mechanism is decreased from a first rotational speed to a second rotational speed.

68. (new) The method of claim 67, wherein the rotational speed of the grinding mechanism is subsequently increased from the second rotational speed to the first rotational speed if food waste enters the food waste disposer.

69. (new) The method of claim 61, wherein the presence of food waste in the food waste disposer is determined by a motor controller.

70. (new) The method of claim 69, wherein the motor further comprises a stator, and wherein the controller is in electrical communication with the stator.

71. (new) The method of claim 70, wherein determining the presence of food waste in the food waste disposer comprises using the controller to monitor a current in the stator.

72. (new) The method of claim 71, wherein an increase in current indicates the addition of food waste to the food waste disposer.

73. (new) The method of claim 72, wherein the rotational speed of the grinding mechanism is increased in response to the increase in current.

74. (new) The method of claim 73, wherein the rotational speed of the grinding mechanism is increased from a first rotational speed to a second rotational speed.

75. (new) The method of claim 74, wherein the first rotational speed is between 400 and 800 rotations per minute.

76. (new) The method of claim 71, wherein a decrease in current indicates the exiting of food waste from the food waste disposer.

77. (new) The method of claim 76, wherein the rotational speed of the grinding mechanism is decreased in response to the decrease in current.

78. (new) The method of claim 61, wherein the grinding mechanism comprises a shredder plate.

79. (new) The method of claim 78, wherein the shredder plate includes grinding lugs.

80. (new) The method of claim 61, wherein the motor is positioned in a motor housing section and wherein the grinding mechanism is positioned in a grinding section, and wherein the motor housing section and the grinding section are adjacent.

81. (new) The method of claim 80, wherein the grinding section further comprises a stationary shedder ring.

82. (new) The method of claim 80, further comprising a food conveying section adjacent to the grinding section for receiving food waste.

83. (new) The method of claim 61, wherein the motor is a switched reluctance motor.

84. (new) The method of claim 61, wherein the motor is a variable speed motor.

85. (new) A method for operating a food waste disposer to process food waste, the food waste disposer having a food conveying section and a motor for imparting movement to a rotatable shaft which is coupled to a grinding mechanism, the method comprising sequentially

removing processed food waste from the food waste disposer; and

providing water to the grinding mechanism while controllably changing a rotational speed of the grinding mechanism.

86. (new) The method of claim 85, wherein the method is performed after the food waste disposer performs an idle mode.

87. (new) The method of claim 86, wherein the food waste disposer is in an idle mode for a certain period of time before performing the method.

88. (new) The method of claim 85, wherein the rotational speed of the grinding mechanism is controllably increased when water is provided to the grinding mechanism.

89. (new) The method of claim 88, wherein the rotational speed of the grinding mechanism is increased from a first rotational speed to a second rotational speed.

90. (new) The method of claim 89, wherein the first rotational speed is between 400 and 800 rotations per minute.

91. (new) The method of claim 89, wherein the second rotational speed is greater than 1500 rotations per minute.

92. (new) The method of claim 85, wherein the motor is a switched reluctance motor.

93. (new) The method of claim 85, wherein the motor is a variable speed motor.

94. (new) The method of claim 85, wherein the food waste disposer further comprises a water inlet separate from the food conveying section, and wherein water is provided to the grinding mechanism through the water inlet.

95. (new) The method of claim 94, wherein the rotational speed of the grinding mechanism is controllably changed by a motor controller.

96. (new) The method of claim 95, wherein the motor comprises a stator, and wherein the motor controller is in electrical communication with the stator.

97. (new) The method of claim 95, wherein the motor controller is in electrical communication with a valve, and wherein the controller provides water to the grinding mechanism through the water inlet by opening the valve.

98. (new) The method of claim 88, wherein the method is performed prior to turning off the food waste disposer.

99. (new) The method of claim 88, wherein the rotational speed of the grinding mechanism is increased for a predetermined period of time.

100. (new) The method of claim 85, wherein the grinding mechanism comprises a shredder plate.

101. (new) The method of claim 100, wherein the shredder plate includes grinding lugs.

102. (new) The method of claim 85, wherein the grinding mechanism is positioned in a grinding section, and wherein providing water to the grinding mechanism while controllably changing a rotational speed of the grinding mechanism causes water to rinse the grinding section.

103. (new) The method of claim 102, wherein controllably changing a rotational speed of the grinding mechanism comprises increasing a rotational speed of the grinding mechanism.

104. (new) The method of claim 102, wherein the grinding section further comprises a stationary shedder ring.

105. (new) A method for operating a food waste disposer to process food waste, the food waste disposer having a motor for imparting movement to a rotatable shaft which is coupled to a grinding mechanism, the method comprising:

determining whether food waste is jammed in the grinding mechanism by monitoring a current provided to the motor; and

attempting to dislodge the jammed waste from the grinding mechanism by adjusting the torque of the rotatable shaft.

106. (new) The method of claim 105, wherein the motor is a switched reluctance motor.

107. (new) The method of claim 105, wherein the motor is a variable speed motor.

108. (new) The method of claim 105, wherein the current is provided to a stator of the motor.

109. (new) The method of claim 108, wherein it is determined that food waste is jammed in the grinding mechanism by monitoring an increase in the current.

110. (new) The method of claim 105, wherein the torque of the rotatable shaft is increased.

111. (new) The method of claim 110, wherein the torque of the rotatable shaft is increased from a first torque to a second torque.

112. (new) The method of claim 105, wherein adjusting the torque of the rotatable shaft comprises reversing the rotational movement of the rotatable shaft.

113. (new) The method of claim 105, wherein adjusting the torque of the rotatable shaft comprises sequentially adjusting the rotational movement of the rotatable shaft between a reverse rotational direction and a forward rotational direction.

114. (new) The method of claim 105, wherein the grinding mechanism comprises a shredder plate.

115. (new) The method of claim 114, wherein the shredder plate includes grinding lugs.

116. (new) The method of claim 105, wherein the motor is positioned in a motor housing section and wherein the grinding mechanism is positioned in a grinding section, and wherein the motor housing section and the grinding section are adjacent.

117. (new) The method of claim 116, wherein the grinding section further comprises a stationary shedder ring.

118. (new) The method of claim 116, further comprising a food conveying section adjacent to the grinding section for receiving food waste.

119. (new) A method for operating a food waste disposer to process food waste, the food waste disposer having a motor for imparting movement to a rotatable shaft which is coupled to a grinding mechanism, the method comprising controllably increasing the rotational speed of the grinding mechanism to a predetermined rotational rate over a predetermined period of time.

120. (new) The method of claim 119, wherein the motor is a switched reluctance motor.

121. (new) The method of claim 119, wherein the motor is a variable speed motor.

122. (new) The method of claim 119, wherein the grinding mechanism comprises a shredder plate.

123. (new) The method of claim 122, wherein the shredder plate includes grinding lugs.

124. (new) The method of claim 119, wherein the predetermined rotational rate is greater than 1500 rotations per minute.

125. (new) The method of claim 119, wherein the predetermined period of time is greater than three seconds.

126. (new) The method of claim 119, wherein the rotational speed of the grinding mechanism is controllably increased from a stationary position.

127. (new) The method of claim 119, wherein the motor is positioned in a motor housing section and wherein the grinding mechanism is positioned in a grinding section, and wherein the motor housing section and the grinding section are adjacent.

128. (new) The method of claim 127, wherein the grinding section further comprises a stationary shedder ring.

129. (new) The method of claim 127, further comprising a food conveying section adjacent to the grinding section for receiving food waste.

130. (new) A method for operating a food waste disposer to process food waste, the food waste disposer having a variable speed motor for imparting movement in a first direction to a rotatable shaft which is coupled to a grinding mechanism, the method comprising controllably varying the rotational speed of the grinding mechanism in the first direction during the operation of the food waste disposer.

131. (new) The method of claim 130, wherein the motor is a switched reluctance motor.

132. (new) The method of claim 130, wherein the food waste disposer further comprises a motor controller, and wherein the motor controller controllably varies the rotational speed of the grinding mechanism during the operation of the food waste disposer.

133. (new) The method of claim 132, wherein the motor further comprises a stator, and wherein the motor controller sends a current to the stator to controllably vary the rotational speed of the grinding mechanism during the operation of the food waste disposer.

134. (new) The method of claim 130, wherein controllably varying the rotational speed of the grinding mechanism during the operation of the food waste disposer comprises increasing the rotational speed from a first rotational speed to a second rotational speed.

135. (new) The method of claim 130, wherein controllably varying the rotational speed of the grinding mechanism during the operation of the food waste disposer comprises decreasing the rotational speed from a first rotational speed to a second rotational speed.

136. (new) The method of claim 130, wherein controllably varying the rotational speed of the grinding mechanism during the operation of the food waste disposer comprises controllably increasing the rotational speed over a predetermined period of time.

137. (new) The method of claim 136, wherein the rotational speed is increased from a first rotational speed to a second rotational speed.

138. (new) The method of claim 136, wherein the rotation speed is increased from a stationary position to a first rotational speed.

139. (new) The method of claim 130, wherein controllably varying the rotational speed of the grinding mechanism during the operation of the food waste disposer comprises varying the rotational speed in accordance with the presence of food waste in the food waste disposer.

140. (new) The method of claim 139, wherein the rotational speed is increased when food is present in the food waste disposer.

141. (new) The method of claim 130, wherein controllably varying the rotational speed of the grinding mechanism during the operation of the food waste disposer comprises varying the rotational speed when water is introduced onto the grinding mechanism to rinse the grinding mechanism.

142. (new) The method of claim 141, wherein the rotational speed is increased when water is introduced onto the grinding mechanism.

143. (new) The method of claim 142, wherein the method is performed prior to shutting off the food waste disposer.

144. (new) The method of claim 130, wherein the controllably varying the rotational speed of the grinding mechanism during the operation of the food waste disposer occurs when food waste is jammed in the grinding mechanism.